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INDONESIAN ABSTRACTS

Abstracts on current scientific Indonesian literature

VOL. II. **APRIL 1960** **NUMBER 2.**

TABLE OF CONTENTS

		Page
3	SOCIAL SCIENCES	23
39	Ethnography. Custom and Tradition. Folklore	23
4	LINGUISTICS.	24
41	General Philology and Linguistics	24
42/49	Languages and Dialects	24
5	NATURAL SCIENCES	25
54	Chemistry. Crystallography. Mineralogy	25
55	Geology. Meteorology	25
57	Anthropological and Biological Sciences	26
58	Botany	26
59	Zoology	30
595.7	Entomology	32
6	APPLIED SCIENCES.	33
61	Medical Sciences. Health and Safety	33
615	Pharmacology and Therapeutics. Toxicology	33
616	Disease. Pathology and Medicine	34
62	Engineering and Technology	35
63	Agriculture. Forestry. Stockbreeding	36

INDONESIAN ABSTRACTS

Abstracts on current scientific Indonesian literature

VOL. II. APRIL 1959 NUMBER 2

TABLE OF CONTENTS

1 SOCIAL SCIENCES .....

39 Ethnography. Custom and Tradition. Folklore .....

4 LINGUISTICS .....

11 General, Philology and Linguistics .....

14/19 Languages and Dialects .....

5 NATURAL SCIENCES .....

51 Chemistry. Crystallography. Mineralogy .....

[illegible]

[illegible]

59 Zoology .....

59[illegible] Embryology .....

6 APPLIED SCIENCES .....

61 Medical Sciences. Health and Safety .....

615 Pharmacology and Therapeutics. Toxicology .....

616 Diseases. Pathology and Medicine .....

62 Engineering and Technology .....

63 Agriculture. Forestry. Stockbreeding .....

3 SOCIAL SCIENCES

39 ETHNOGRAPHY. CUSTOM AND TRADITION. FOLKLORE

398.9
PURBATJARAKA.

Tjatatan untuk karangan H. G. Tarigan tentang kata pepatah (Remark on the article of H. G. Tarigan concerning the word "pepatah") in *Bahasa dan Budaja* 6 (5) : 5-6, 1958.

The word "pepatah" is derived from the Arabian "fath" which means victory ; the word "patah" in Javanese means function, in Old-Javanese as in Bharata Yuddha XXXII, 5, it means earring. The word "padah" in the manuscript of Kota Kapur (608 ç), means beautiful, which is closely related to the word "padah" in Old-Javanese.

398.2 (921) : 899.2
TARIGAN, H. G.

Tjeritera[2] dari Simelungun buat perkembangan kesusasteraan Indonesia (Tales from Simelungun for the development of Indonesian literature) in *Bahasa dan Budaja* 6 (4) : 35-44, 1958.

An original in Simelungun language with its translation in Indonesian.

1) The story about "Girah Tading maetek", about a girl named Marliah who lives in sorrow, because her brother has been killed by her cruel uncle who wants to take the inheritance of her parents. Her brother's ghost always helps her and shows her places where food is to be had.
2) "Si Tading Malungun", an orphan who is left by his gambling father. His mother's ghost always follows him and at last he meets his father who has bettered his life.
3) "Turi[2]an ni pumuluti" about two brothers who went out catching birds and then started quarrelling. The younger burns his brother's house and then he goes abroad until his end comes.
4) "Parlandja pisou dohot parlandja gula" about two hawkers, one selling knives, the other wood. They continuously try to cheat each other by changing their merchandise. Once when looking for a job, they received a horse, but the horse changed into a tiger, after which they did not cheat anymore.

398.9
TARIGAN, H. G.

Kata pepatah (The word "pepatah") in *Bahasa dan Budaja* 6 (5) : 3-4, 1958.

Summary of the meaning of pepatah according to various dictionaries and authors and its meaning in some dialects. Etimologically, the word "pepatah" is derived from the stem "pedah", "podah" or "padah" which means advice.

4 LINGUISTICS.
41 GENERAL PHILOLOGY AND LINGUISTICS

415.4
KAHLO, GERHARD.

Nama² burung (Names of birds) in *Bahasa dan Budaja* 6 (4) : 17-18, 1958.

An etimological derivation of the names of three kinds of birds. The name "burung enggang" (Bucerus rhineceros) and its name in many dialects shows a similar suffix "ang" means a bird. The name "burung hantu" (kukukbeluk) in some dialects has the same root "kukuk" (imitation of the sound or nail) and luk, which means a curve. The name "burung tjerulin" or "kedidi" (Charadrius pluvialis) compared with some names in some dialects means the princes bird, connected with a goddess in Polynesian mythology.

415.4 : 499.22
PURBATJARAKA.

Gembira dan Pamursita (The words "Gembira" and "Pamursita") in *Bahasa dan Budaja* 6 (4) : 12-16, 1958.

An etimological description of the word "gembira" in Javanese from its stem in Old - Javanese and Sanskrit; it is derived from the word "gambhira" or "gabhira" which means deep. The author gives examples from lines of the Ramayana in Old - Javanese, Sarga XI : 61-62, where the word "gabhira" occurs. Here this word means glad. A similar description is given of the word "pamursita"; because of misreading it is pronounced "pamuspita" which means to honour with flowers. Futhermore the word "winursita" is treated, which means to be told.

413 : 499.2 (912)
WATUSEKE, F. S.

Tjatatan pada kamus djolong bahasa Tondano-Indonesia (Notes on the first Tondano-Indonesian dictionary) in *Bahasa dan Budaja* 6 (4) : 19-24, 1958.

A criticism against this dictionary, by G. H. Lengkong and A. Wantalangi, published by Jajasan Kuranga Tomohon 1953, concerning mistakes in spelling, adverbs, prefixes, loan-words. A list of semantic mistakes is added.

42/49 LANGUAGES AND DIALECTS

499.22 (911)
SJAMSI D. N.

Sedikit tentang bahasa Dajak Ngadju (Notes on the language of Ngadju-Dayaks) in *Bahasa dan Budaja* 6 (4) : 25-28, 1958.

Before independence, little attention was paid to the dialects of Borneo. The Dayak Students Association in Bandung tries to promote an Institute for Research and Development of Dayak people. A list is presented of many dialects according to clans ; it is assumed that these are derived from a common source.

5 NATURAL SCIENCES

54 CHEMISTRY. CRYSTALLOGRAPHY. MINERALOGY

546.77 : 545.81
ZEEHUISEN, J. J.

Modifizierte quantitative molybdänbestimmung, in *Hemera Zoa* 64 : (11-12) : 400-11, 1957.

A modification of some well known quantitative Molybdenum determinations is suggested, by which Molybdenum is first precipitated as an a-benzoinoxime complex. This complex is isolated and reduced with sodium metabisulphite and p-methylaminophenolsulphate ("metol"). With the aid of a KCNS-solution the thiocyanate complex of Mo is formed, extracted with ether and its strength determined by colorimetric analysis. The colour of the etheral solution of the Mo-CNS-complex containing a-benzoinoxime is remarkably stable. Limits of determination ± 25 p.p.m.

55 GEOLOGY. METEOROLOGY

550.81 : 669.18 (910)
KOSASIH, O.

Projek besi/badja negara (The State iron and steel project) in *Insinjur Indonesia* 7 (7) : 5-7, 1959.

A survey of the State planning for erecting an iron and steel industry, as being essential for national reconstruction. Iron is imported now up to a value of 1 milliard rupiah a year. According to indications, Indonesia has the raw materials, viz. coal, iron ore and also scrap.

With assistance of WEDEXRO (a German consulting Bureau) the first explorations have been carried out : iron ore was found in South Sumatra, West Java and South Borneo, and coal in Sumatra, South Borneo, West Java. As to the quantity and quality of both ore and coal, the prospects are not very promising. The choice of type of furnace should be determined by the quality of the iron ore. This is the first phase in this project.

The second phase will be the construction of remelting and rerolling factories, with scrap iron and imported pig iron as raw material.

The third phase will be an ore melting, steel manufacturing industry.

578.085 : 616.988.23
LIE KHING TING

Diagnosa poliomyelitis dengan biakan djaringan (Tissue culture technique as a diagnostic tool in poliomyelitis) in *Madjalah Kedokteran Indonesia* 8 (6) : 172-82, 1958, 7 figs., 45 refs.

The application of the tissue culture technique in the isolation and typing of poliomyelitis virus is discussed, also its use in the neutralization and complement fixation test. Poliomyelitis virus was isolated from six out of 15 stool specimens ; five of the isolated strains appeared to be of type I and one strain of type III. Of these six cases five patients showed clinical symptoms of poliomyelitis. No clinical data were available on the single positive and on the negative cases.

576.35.001.5 : 582.545
OLAH, L. v.

The cytology of Corypha elata Roxb., in *Annales Bogoriensis* 3 (1) : 1-31, 1958, 10 figs.

Cytological investigations on the meiosis of Corypha elata and the meiotic division of the PMCs is described. These are usually uninucleolate, but occasionally bi- and trinucleolate ones are found. Budding of the nucleoli and formation of a Feulgen-positive substance at zygotene were observed. The location of the nucleolar-organizing region is the same as in C. umbraculifera ; on budded nucleoli the attachment segment is collar-like, situated on the narrowest part of the nuclear bulk. At early zygotene a Feulgen- positive substance appears here and at the upper segment of the SAT-threads, attached to the nuclear-organizing region. Later this substance is found among the chromosome threads as dot rod or filament-like bodies ; these disappear at the end of zygotene. There are slight differences with C. umbraculifera as to the amount of Feulgen-positive substance ; the selective stainability of the nucleolar organizing substance, chromosomal threads, etc. are not so good ; the meiotic division occurs earlier, before the inflorescence appears. In C. elata n = 18 ; the species is not considered a polyploid, which conforms with Sato's view that in Corypheae b = 18.

58 BOTANY

581.2 : 635.34 (922.2)
IDA NJOMAN OKA.

Tjatatan[2] sementara tentang suatu penjakit kubis di Ngablak dan Pakis, Daerah Magelang (Djawa Tengah) (Preliminary note on a disease of cabbage in Ngablak and Pakis, Magelang district, Central Java) in *Pemberitaan Balai Besar Penjelidikan Pertanian Bogor* no. 154 (1959), 15 pp., 4 figs.

In 1958 in the Magelang district a serious cabbage disease occurred. Cabbage cuttings, when approximately three weeks old, gradually wilt and die off. Symptoms are a poorly developed rootsystem, a bare stem, black spots along the root collar. Isolations from these black spots yielded Rhizoctonia, Fusarium and several kinds of bacteria. Inoculation of cabbage cuttings (Argalingga variety) gave a positive result with Rhizoctonia, a negative with Fusarium (number of plants experimented with is 10, of which 7-8 diseased) ; the symptoms were similar to those of the diseased plants of Malang. The cause of the infection is assumed to be the fact, that not fully decomposed compost was used, in combination with a wet season.

58.001.5 : 551.43 (921)
JACOBS, M.

Contribution to the botany of Mt. Kerintji and adjacent area in W. Central Sumatra - I, in *Annales Bogoriensis* 3 (1) : 45-104, 1958, 21 figs., one map.

An extensive description, based on an exhaustive literature survey and on observations during a botanical exploration in 1956 of the Mt. Kerintji area. Discussed and described are : geomorphology, meteorology, followed by an exhaustive historical sketch of explorations (a total of 18). A description is given of the floristic aspects of the mountain ; the most conspicuous feature being a Gleichnea belt above 2400 m. to about 2900 m altitude ; higher up an ericoid forest appears, whereas at 3000 m. ; an ericaceous shrub-zone is predominant. The highest plant - at 3550 m. - was Carex verticillata. A floristic description of Mt. Tudjuh and the Bento area is given.

582 + 581 : "Raff." (921)
MEYER, W.

A contribution to the taxonomy and biology of Rafflesia arnoldi in West Sumatra, in *Annales Bogoriensis* 3 (1) : 33-44, 1958.

A survey of former and recent findings of Rafflesia arnoldi is presented. R. arnoldi seems to occur in Central and S. Sumatra. It is pointed out that R. tuan-mudae Becc. from Borneo might be conspecific with the former. Koorder's key in his monograph seems to be incorrect. Growth measurements were carried out ; the mortality of the buds was recorded. It is suggested that pigs and squirrels can act as distributors. The cycle from seed to seed is confirmed as being from 4,5 - 5 years.

581.46 : 582.58 (922.1)
NAZAR NUR.

Observasi pada Musa textilis Neé, Bagian Pertama : Tjatatan[2] mengenai biologi bunga (Observations on Musa textilis Neé, Part 1, notes on flower

biology) in *Pemberitaan (Communication) Balai Besar Penjelidikan Pertanian, Bogor* no. 151, 1958, pp. 115, 9 figs.

An extensive survey of the floral biology, carried out with different varieties in Bogor, based on measurements. The appearance of the inflorescence is usually preceded by the emerging of the socalled "flag" leaf, which generally happens some 2 weeks before. The length of time between the emergence of the heart and the opening of the first cluster of pistillate flowers varies between 12 and 21 days. The duration of blooming of female hands is only a few days and it is immediately followed by the blooming of the male clusters. Blooming is in general affected by climatic factors, probably most by temperature. There is a tendency, that during dry and warm periods the number of bracts that lift in a day, is greater than during humid and cool periods. During those dry and warm periods hastening of the opening of the bract also happened. A significant influence of the climate, as stated by some Philippine investigators, could not be seen in Indonesia, probably because of the small fluctuations of the climatic factors in Bogor. Blooming of the flowers begins late in the afternoon. Lifting of the bracts during morning hours was never noted at Bogor, contrary to the findings in the Philippines. The moment the bract opens, the flowers start blooming. A white mucilaginous, sticky substance appears on the stigma of the pistillate flower and dehiscence of the anther occurs in he staminate flowers. At the same time or immediately there after both kinds of flowers emit their nectar. Influence of weather conditions on the blooming of the flowers was detected, but it was not significant. The stigma becomes receptive, as soon as the mucilaginous substance appears on its surface. It corresponds with a pH 6 of the stigma. Any connection with the angle of the bracts could not be observed. The stigma remains receptive for only two days and it may also depend on the variety. Besides during those days the receptivity decreases gradually and it also corresponds with the decrease of the pH, which becomes 5 or 4. The colour of the stigma also changes gradually from yellowish white to blue. Fertilization is possible from the moment the flowers open and the stigma becomes receptive. Although it can be done throughout the day, the best time for crossing is early in the morning. Afternoon pollination does not give good results, due to the drying up of the stigmatic fluid. Pollen remain viable for two days after maturity. Storing under different humidity and temperature does not effect that days' viability. Contrary to the findings in the Philippines, at Bogor hearts that had been severed from the mother plants did not open their bracts after more than one day. Only if they are collected together with the pseudostem, do they open their bracts for several consecutive days. On the second morning most of the male clusters are already shed. This corresponds well with the longevity of the pollen grains. Investigations on time of shedding clearly show the protective nature of the bracts. Most of the bracts of the female and the male clusters are usually shed

after 40 and 48 hours of blooming respectively. During wet and cool periods the shedding of the bracts of the female clusters is delayed, but it is quite the reverse with the bracts of the male clusters, its shedding is just delayed during dry and warm periods. Most probably the stigma and the pollen have to be protected from rain and drying up respectively. The structure and the blooming of the inflorescence show, that Musa textilis is naturally cross-pollinated. The inflorescence is proterogynous. Autogamy is an impossibility, but the chance for geitonomy is always present. Fruits formed by self-pollination, sometimes do not contain as many normal seeds as those produced by cross-pollination. At Bogor abaca is a plant which shows nocturnal flowering and which has typical bat-flowers. Parthenocarpy never happens and all the flowers have to be pollinated before fruit formation. The agents in pollination are small bats (Macroglossus minimus). These animals are attracted to the flowers by the typical smell, emitted by the bracts. Investigations on wind-pollination with gelatined slides show, that with abaca anemophily has a very little chance. A method of artificial pollination is described. A comparison is made between fruits formed by artificial pollination and those produced under open pollination and it turns out, that hand pollination is not so good as open pollination.

581.27 : 582.475 (921.21)
SOEPARDI, R.

Penjakit dan hama dari Pinus merkusii karena serangga di Tanah Gajo (Diseases and pests of Pinus merkusii, caused by insects in Tanah Gajo) in *Rimba Indonesia* 7 (5-6) : 264-77, 1958, 8 text figs.

From 1952-1955 the resin production from Pinus merkusii suffered heavy losses by insect-damage of the trees, by forest fires, by insurgents, who burned down resin deposits, by theft of collecting cups, by losses in the nurseries of seedlings (attack by ants and termites) and by elephants, who picked the cups from the trees to throw them away. The author gives a survey of insects causing damage.

1. Miliona basalis Wlk., a moth which lives entirely on the needles. The pest is checked only by continuous rainfall, when Miliona is attacked by a parasite.
2. Cryptothelea variegatus Schnell. The caterpillar attacks old Pinus trees. In 1954 c. 80 ha were eaten completely bare. The caterpillar attacks the younger trees when the older ones are bare ; in other cases both are attacked at the same time. Raising moths from cocoons at home, failed completely ; a large percentage in the field likewise does not develop. In 1955 c. 130 ha were eaten bare.
3. Cryptothelea pseudo Schnell. Eats one side of the needles ; the attacked trees look brown. Heavy rainfall checks the pest, which was seen for the first time in 1926.

4. Red ants, which are glued to the resin and make it dirty ; they are attracted by he sweet smell of the resin. No damage is done.
5. Of white ants attack little is known.

59 ZOOLOGY

591.3.0049 : 636
FISCHER, H.

Identical Cattle twins at Depok, West-Java, in *Communications Veterinariae* 2 (1) : 27-32, 1958, 3 figs.

Identical bull calves of the Holstein-Friesian breed in Indonesia are briefly described. The diagnosis of identity is based on a similarity test. Some remarks are added on the importance of identical twins for animal husbandry. Occurence of twinning and higher multiple births in the European, Zebu-and Japanese cattle breeds are mentioned.

593.19 : 599.735.5
HOLZ, J.

Die Verbreitung der Sarcosporidien im Wirtsorganismus (The distribution of the Sarcosporidia in the organs of the host) in *Hemera Zoa* 64 (1-2) : 47-60, 1957, 5 figs.

A description of Sarcosporidia in cows and buffaloes based on a study of serial haematoxylin stained histological slides. As a result of this and of previous work, the author presents the following hypothesis of the life cycle of the parasite. This consists of two parts : the asexual and the sexual phase. In the asexual phase round cells, so-called "bullet cells" are formed by a layer of the compartment in the cyst. These cells undergoes fission and become crescent shaped bodies which are called "sickle germ".

In the sexual cycle with the aid of the electron microscope inside the "sickle germ" two types of bodies assumed to be gametes were observed. These probably fuse and a motile zygote is formed. Some of these become lodged in the surrounding tissue and grow into another cyst. Others enter the bloodstream to be carried to other parts of the host-body or to be excreted with the urine. This would explain why animals fed with parts of other animals harboring the parasite could acquire the disease.

593.19 : 599.735.5
HOLZ, J.

Die Prädilektionsorte von Sarcosporidien in Büffeln (The localization of Sarcosporidia in buffaloes) in *Hemera Zoa* 64 (3-4) : 136-42, 1957, 3 figs., 1 map, 2 tables.

A study on 40 buffaloes with sarcosporidiosis. Macroscopically visible cysts in the esophagus of these animals were present. The tissues of throat, heart, muscle and spleen were examined microscopically. In animals coming from the western part of Java the parasites are mainly found in the esophagus as cysts (Mieschersche Säckchen), while in those from the eastern part of Java the parasites are distributed in the body as juvenile forms (Mieschersche Schläuche).

591.2 : 616-006.3 : 599.742.1
RESSANG, A. A.; TITUS, KOERJANA, SIKAR AND R. NABIB.

Veneral sarcoma in the dog, in *Communications Veterinariae* 2 (1) : 1-19, 1958, 14 figs.

Veneral sarcoma (condyloma) is widely distributed in Indonesia. In the Small Animal Clinics of the Faculty of Vet. Science in Bogor, this tumour has been found in 3.5 per cent of dogs examined. These veneral growths must be considered as real neoplasms (reticulo sarcoma) belonging to the group of transmittable tumours and originating from connective tissue. They should not be considered as specific granulomas caused by an infective agent. The authors were able to transplant the tumour subcutaneously and submucously. In case of failure of transplantation they concluded that this was caused by a kind of spontaneous or induced immunity. Heterogenous transplantation in other animal species (mice, rats, cats, guinea pigs, horses) is impossible. Progesteron and testosteron apparently have a stimulating effect on the tumour growth. Estron suppresses the tumour growth temporarily. It is, however, of little or no value for therapeutic purposes. There is a wide histopathological variation. Histopathologically the authors distinguish between :

a. Condyloma (Reticulo sarcoma) type lymphosarcoma.
b. Condyloma (Reticula sarcoma) type small round-cell sarcoma.
c. Condyloma (Reticulo sarcoma) type large round-cell sarcoma.

The existence of a virus or any other causal agent could not be proved. Recidivism in surgical therapy has been stated in 12½ per cent (Bogor). The authors strongly suggest röntgenological therapy in cases where this equipment is available.

595.3
SERENE, R., TRAN VAN DUC, NGUYEN VAN LUOM.

Eumedoniae du Vietnam (Crustacea) in *Treubia* 24 (2) : 135-242, 1958, 7 plates, 11 figs.

This study was based on a collection from Nhatrang and is limited to 3 genera of the 5 which comprise the subfamily Eumedoninae. With one exception, all specimens live in symbiosis with Echinoderms. From the study of Eumedonus pentagonus it became clear that the genus

Echinoecus with E. pentagonus should be re-instated. From studies of Ceratocarcinus spinosus and C. longimanus (host of Comatule) the relationship with the genera Harrovia and Ceratocarcinus became more clear. The study of Harrovia albolineata (host of Comatule) clarified the variation of some characters as to shape and sex of the specimens. A bibliography together with a list of species of the sub-family is presented.

591.2 : 599.32
SIMON, E.

Deformity in a rabbit, in *Communications Veterinariae* 2 (1) : 43-50, 1958, 4 figs.

A deformed rabbit is described ; there are indications that the deformity has developed early in the second half of pregnancy. In its first half, growth may have occured in an undisturbed manner, for the rabbit has formed all bodily singularities and was able to survive. The disturbance apparently did not start a short time before birth, because a transformation was impossible, despite the fact that postfetal living conditions were very good. The researched vitium according to its main alterations must be termed as Campylorhachis et Campylotetrapodes abducti cum Atrophia musculorum et Ostitis deformans. It demonstrates obviously the efficiency of mechanical intra-uterine pressure and post fetally partly functionlessness, partly static overfunction and does not seem to be the result of an heriditary effect.

595.7 ENTOMOLOGY

595.76.001.7
GILMOUR, E. FOREST.

Revision of the genus Apriona Chevr. (Coleoptera, Cerambycidae, Lamiinae, Batocerini) in *Idea* 11 (4) : 93-131 (continuation), 1958.

Another seventeen species of Apriona are described at length, of which two species are new to science (A. novae-brittanicae, H. novaeguineae), one new variety (A. cinerea newcombei) is presented.

595.76 (910)
LOUWERENS, C. J.

New Carabidae, chiefly from Borneo and Celebes (Coleoptera) in *Treubia* 24 (2) : 251-61, 1958, one fig.

Description of the new species : Dinopelma wegneri, D. intermedia both from E. Borneo and an emendation to D. angustum Andr. ; Calleida lieftinki from S. Borneo ; Trichocoptodera maculata gen. et sp. n. from Celebes ; Dolichoctis tjambaensis from Celebes and D. maculipennis from Java ; Holeoderus elegans from Celebes.

595.76 (083.8)
LOUWERENS, C. J.

A collection of Carabidae from the Northern Moluccas (Coleoptera), Part 2 in *Treubia* 24 (2) : 249-50, 1958.

A list of identifications with a discussion (based on notes of F. I. van Embden) of the name of Dicrochile gigas.

595.72 (083.8)
MAX BAYER.

Mantiden aus dem Museum Zoologicum Bogoriense (Orthoptera) in *Treubia* 24 (2) : 245-47, 1958.

A list of identifications from various Indonesian collections in the Bogor Zoological Museum.

595.76 (911)
STROHECKER, H. F.

A new species of Spathomeles from Borneo in *Treubia* 24 (2) : 243, 1958, one fig.

Description of S. wegneri, which links the genus to Engonius.

6 APPLIED SCIENCES

61 MEDICAL SCIENCES. HEALTH AND SAFETY

615 PHARMACOLOGY AND THERAPEUTICS. TOXICOLOGY

615.849.001.5 : 616-006 (922.121)
RASAD, S.

Hasil-hasil pertama pengobatan penjakit ganas dengan sinar radioaktif Cobalt-60 di Djakarta (First results of Co-60 therapy of malignant tumours in Djakarta) in *Laporan Kongres Ilmu Pengetahuan Nasional Pertama* 2 (A1) : 183-92, 1958, 1 table, 9 figs, no refs.

The principles of radiotherapy in general and the therapeutic use of the radioisotope Co-60 in particular, are discussed.

A report is given on the first results of Co-60 therapy in Djakarta. Satisfactory results have been achieved in the treatment of deep-seated tumors, such as carcinoma of the lung, carcinoma of the digestive tract, carcinoma of the nasopharynx, carcinoma of the bladder and reticuloendothelioma.

615.7 : 616.937
TANDJUNG ADIWINATA, R.

Investigations into the use of Naganol-hyaluronidase combination in the control of surra in *Hemera Zoa* 64 (11-12) : 396-99, 1957.

No immunisatoric way has proved satisfactory to combat surra ; police and biologic measures are ineffective to control it, because of undetectable parasite reservoirs and it is impossible to destroy all transmitters. The fight against surra is solely carried out by chemoprophylaxis and chemotherapy, for which naganol- arsocoll are in use since 1925. Factors responsible for disappointing results of this treatment are : it should be given intravenously, but this is difficult in the field ; the potency is inadequate, especially in advanced cases ; there are many cases of intoxication caused by curative doses. Experiments to improve the treatment were carried out by means of adding hyaluronidase to the combination of naganol and arsocoll. By adding at least 2 viscosity units of apertase to every 3 grams of nagacol, a 10% solution of this drug can be injected intramuscularly without the risk of tissue reaction, which means a simplification. The ingredients should be mixed just before application. It was proved that addition of hyaluronidase does not impair the effect of naganol-arsocoll ; at the same time there is no improvement in effectiveness. Tests to increase the permeability of the haemato-encephalic barrier by means of hyaluronidase, in order to stimulate the diffusion of naganol into the cerebro-spinal fluid yielded no definite results. The frequency of intoxication did not increase by adding hyaluronidase.

616 DISEASE. PATHOLOGY AND MEDICINE

616.89 : 616
AULIA.

Beberapa tjatatan tentang psikosomatik (notes on psychosomatic medicine) in *Laporan Kongres Ilmu Pengetahuan Nasional Pertama* 2 (A1) : 3-18, 1958, 22 refs.

The aspects of psychosomatic medicine are roughly outlined. The importance of religion as a spychomatic therapeutic is emphasized. In conclusion two illustrating cases are presented.

616-036.2 : 216.921.5 "1957" (922.121)
GAN KOEN HAN, R. MA'MUN, R. WARSA.

The etiology and epidemiology of the 1957 influenza in Djakarta (Indonesia) in *Madjalah Kedokteran Indonesia* 8 (12) : 392-99, 1958.

From April to August 1957, an epidemic of influenza occurred in Djakarta. This socalled "Asiatic influenza" has remained a benign disease. The usual course of fever lasting 1 to 5 days without severe complications. The general picture was that of a sudden onset of fever with headache, cough, rhinitis, diffuse pains in muscles and joints, malaise, conjunctival injection, abdominal pain, anorexia, restlessness, vomiting and insomnia. The incubation period seemed to be as short as 12 hours and the maximum

3 days. The infection rate in August 1957 was estimated to be at least 42,7%. The age of the patients varied from 15 to 60 years, but the majority were in the 15 - 24 year groups. The observations are in general agreement with the findings of Mc. Creadie (1957), Le Roy E. Burney (1957), and the W.H.O. report for 1957. Our attempts to isolate in embryonated eggs were successful in 8 cases and failed in 16. The viruses isolated belonged to the Far East influenza A. The diagnosis of influenza in 13 cases out of the 16 negative (no virus isolated) patients could be confirmed by the hemagglutination-inhibition test, in which an increase in titre 4 fold was observed. From examinations of antibodies (anti-hemagglutins) for influenza virus in sera from the healthy population in Djakarta, it may be concluded that previous infection with influenza virus (PR8, A-prime, B-Lee) conferred no protection against an attack by the Djakarta strain. We consider the Djakarta strain (A/Indonesia/57) as the principal agent of the epidemic.

616.932 (922)
GAN KOEN HAN, ENDOT M. ACHJA, SOEKONO, ROEKMONO AND R. WARSA with technical assistance of SUHARTO and SARDJITO.

Peristiwa[2] pertama paracholera EL TOR (First cases of Paracholera EL TOR in Java) in *Madjalah Kedokteran Indonesia* 8 (6) : 167-71, 1958. 3 refs.

The authors report two fatal cases of EL TOR Cholera occuring in Djakarta. These are the first cases observed in Java and may be considered autochthonous as the two patients had never been outside Java. The cases behaved clinically like true cholera. The vibrios isolated in Djakarta behaved both bacteriologically and serologically like EL TOR vibrios. These two cases of EL TOR Cholera in Java are of epidemiological importance since they prove that this disease is not restricted solely to the island of Celebes. The origin of this disease in Djakarta is not known. There is a possibility from the history of one patient that it was imported by ships or praos from Celebes. At present an epidemiological investigation is underway. In addition to bacteriological studies on suspected cases, families and other contacts, water from wells and ditches will be examined.

62 ENGINEERING AND TECHNOLOGY

621.968 : 634.953
SANJOTO.

Kampak untuk penebangan hutan (Axes for felling trees) in *Pengumuman Istimewa* 14, Forest Research Institute, Bogor, pp. 3-41, 1958.

Shape and weight of axes depend on local custom. There are axes for felling hardwood and for softwood. The head is partly made of steel ;

an elaborate survey of forging and tempering is presented. Kinds of timber, preferable for handles, are enumerated and it is explained at length, how to cut a handle and the shapes of handles. The different kinds of axes are discussed. From literature is cited the way a tree should be cut down and the way an ax should be sharpened properly.

621.039
SUDJITO DANUSAPUTRO.

Reaktor (Reactor) in *Medan Ilmu Pengetahuan* 1 (1) : 113-21, 1959.

A nuclear reactor is an apparatus in which the energy, stored in the atom can be released. When uranium is put into the core of the reactor it gets hot. The faster the nuclear reaction proceeds, the more heat must be removed from the reactor and so the uranium is cooled by a blast of air or by water, or even by liquid sodium. In a nuclear power station, this hot coolant is pumped to the boilers, where it raises steam for the turbines. Moderators such as graphite blocks slow down the fission neutrons. The operation of the reactor can be controlled by a careful disposition of neutron-absorbing cadmium or boron rods. The operators must be protected from the radiations inside the reactor, which are even penetrating than X-rays. For this reason reactors are surrounded by thick walls of concrete known as "biological shields".

63 AGRICULTURE. FORESTRY. STOCKBREEDING

633.888 : 582.937
BISSET, N. G.,

The occurence of alcaloids in Apocynaceae in *Annales Bogoriensis* 3 (1) : 105-236, 1958.

An exhaustive and detailed survey of the occurence of alcaloids in all species of Apocynaceae. The species are arranged according to Pichon's classification. There is evidence that alcaloids are probably present in about 60 genera, but only about half of these include species in which it is a major secondary plant product. The formation of at least small amounts of basic substances seems to be a fairly general function in these species.

634.98 (910)
CERMAK, F.

Observations to the utilization of Indonesian non-teak hardwoods in *Rimba Indonesia* 7 (5-6) : 255-63, 1958.

The forested area of Indonesia is given as 79 million ha (1954) ; with an assumed increment of 200 million cubic metres yearly, based on an

increment of 2.5-3 cubic metre pro ha. According to official figures only 3 million cubic metres (1.5%) are cut yearly, of which half a million represents teak, one million non-teak and the remainder fuelwood. All these figures should be accepted with great caution and with wide margins, as only 40% is actually production forest and of these little is known. Unrecorded cuttings for fuelwood are an estimated 45 million cubic metres a year, but this originates mostly from agricultural areas, villages, gardens and the like. The reasons, why so little is exploited are :

1. Of the estimated 30 million ha. production forest only 10 million are exploitable and of these only 7-8 million are accessible (1.5 million ha on Java, 4.5 on Borneo and 1-1.5 million on Sumatra). Only 12% of these is utilized.
2. Only one percent is teak forest ; the remaining non-teak forests yield timber inferior to teak, but most are unknown. Of the 3000 timber species only 20 are used to some extent. The Forestry Service concentrates on 10-12 timber species (commercial timbers).

The author compares the situation in Indonesia with that of French Africa, which is similar. In Africa the non-teak timber industry failed, because no regular permanent delivery of the required timber could be made ; after World War II a single Government sales office was created, but this also failed. For Indonesia, where teak is not available sufficiently any more it is advised ; 1) to improve sawmilling by partly quarter sawing 2) improve the durability of the timber.

The insignificant wood exports of Indonesia are attributable to the high transport costs, the lack of an efficient propaganda and the lack of outlets. The author strongly supports the view to convert the timber in mixed teak-fibre boards as the easiest way of introduction and commerce.

636.293 : 398.2
KRANEVELD, F. C.

Veterinaire varia van Indonesia, no. III, Buffels zonder horens (Veterinary varia of Indonesia, n. III, Buffaloes without horns) in *Hemera Zoa* 64 (11-12) : 390-95, 1957.

In a letter from a Prince of Mataram addressed to the Governor General in 1671 buffaloes without horns are mentioned. In Sumatra such animals were allowed to Radjahs only. Among some population groups in Java, however, these were considered bad animals bringing bad luck. Buffaloes without horns seem to be rare. According to a communication of Doeglas, quoted here, hornless buffaloes had no testicles.

636.085 (910)
LUBIS, D. A.

Kepentingan dedak-padi dalam ransum makanan ternak di Indonesia (Importance of rice polish and bran in livestock feeding in Indonesia) in

Pemberitaan no. 1, Balai Pusat Penjelidikan Peternakan, Bogor 1958, Thesis.

A survey is presented of the litterature on he nutritional value and the vitamin content of the by-products (bran, polish) of rice milling and pounding. These by-products are called dedak-padi. As there exist conflicting meanings of the nutritional value, the author has started experiments. One chapter deals with the anatomy and histology of the grain with chemical analyses ; one chapter with chemical analyses of the three by-products : bekatul (polish), dedak-halus or dedak-lunteh (fine bran) and dedak-kasar (coarse bran). A quality classification dependent on the fibre content (as opposed to protein) is worked out ; the higher the fibre content (husks) the lower the value, hence bekatul and dedak-lunteh are high, the others low. Experiments carried out with chickens, sheep and pigs showed that a mixture of hulls to the dedak-padi are most detrimental to the former. Polish and fine bran have a high feeding ratio ; addition of hulls should be discouraged and in case of adulteration with hulls governmental measures should be taken. The quality of the fine bran and polish can be estimated by flavour, colour and consistency, or by measuring the specific gravity (1 liter should weigh in excess of 300 grams), by microscopical examination, or by chemical reactions on protein and fibre.

632.951 : 615.9 : 599.742.7
RESSANG, A. A., I. TITUS, R. SOETOPO ANDAR and DJOKO SOEDARMO.

Aldrin, Dieldrin and Endrin intoxication in cats in *Communications Veterinariae* 2 (2) : 71-88, 1958, 18 tables.

The use of insecticides in the fight against insectborne diseases in Indonesia often results in intoxication of live stock.

The authors studied the toxicity of endrin, aldrin and dieldrin in cats. The lethal dose was studied by different routes of application. It was found that endrin was most toxic, while dieldrin least. The symptomatology and pathological changes in animals are described.

636.085 (910) : 633.2
SCHOORL, P.

The importance of pastures for cattle-breeding in Indonesia in *Communications Veterinariae* 2 (1) : 53-69, 1958.

Although the cattle food supply is not sufficient, there still has been very little attention paid to the improvement and greater production of grass crops in Indonesia. After two years of study and of observation the author comes to the conclusion, that

1. improved grass production is the only solution for increasing the productivity of all cattle, especially of milk-cattle.

2. it is possible to obtain grass crops both quantitatively and qualitatively comparable to the best in the world, provided the soil is irrigated and judiciously fertilized.
3. mixed farming would bring many advantages to Indonesian agriculture.

Matters concerning the laying-out and fertilizing of pastures and concerning the method of conserving grass best suited to Indonesia are also included.

632.7 : 595.78 : 633.492
TJO TJIEN MO

Bedellia annuligera Meyr. (Lepid., Bedelliidae), Hama baru jang penting pada umbi djalar didaerah Lembang, Bandung (Bedellia annuligera Meyr., a new insect-pest of sweet potatoes near Lembang, Bandung) in *Pemberitaan Balai Penjelidikan Pertanian*, Bogor no. 153 (1959), 2 figs.

Thus far it was not known, that this leaf mining caterpillar could become injurious to sweet potatoes. An extensive description of the insect and its life habit are presented. The injure in the plantation was first observed in 1951 and gradually increased, it occurs only during the dry monsoon. Damage resembles that of Brachmia convolvuli, a well-known pest. The plants become completely defoliolated, they resprout but the sprouts are not healthy and look like witches brooms. The parasite Stenomesius sp. (Hym., Eulophidae) was reared from full-grown larvae. Pest control by dusting with D D T, Folidol, Aldrin, Dieldrin, etc.

639.22.081.1 (910)
UNAR, M.

Beberapa pertjobaan penangkapan tongkol dengan tjara baru di perairan Indonesia (Experiments with a new method of tuna fishing in Indonesian waters) in *Warta Perikanan Laut* 1 : 4-70, 1958.

Tuna fishing in Indonesia is carried out in inshore waters and is aimed at tuna-like fishes living near the surface. Used are sailing boats ; the gear consists of encircling nets with a bag (payang or pukat) and trollers (tonda). To improve fisheries after 1950 small wooden clippers were imported and partly built in Indonesia and distributed to fishery cooperatives. There are now more than 30 operating near N. Celebes and Amboina. In 1954 experiments to introduce the Japanese long line methods were started with the research vessel "Bima". The Japanese have-after World War II - quickly recovered their area, of tuna fishing and the yield is higher than the pre-war one. With help of a mothership the area stretches now as far as South of Java and the Lesser Sunda islands. A detailed survey is given of the Japanese longline gear and its handling. As bait dead fish is used (fresh fish is not necessary) : milkfish

(Chanoschanos), mullet (Mugil sp.); horse mackerel (Decapterus sp.); flying fish (Cypsilurus sp.), Chub mackerel (Rastrelliger sp.) and queenfishes (Chorinemus sp.). The different kinds of tuna and marlins are described (with drawings) (Thunnidae, Istiophoridae, Xiphidae). As a large part of the catch consists of sharks (which are of economic importance), the different species are treated. During a series of years for some months experimental fishing was carried out in different regions, the results of which are tabulated. The difficulties encountered are discussed. The catch is sold fresh (on ice). The common kinds caught are in order of frequency: yellowfin, big-eyed tuna and skipjack; albacore was very rare (only S. of Lombok). Of the marlins the white one is the most abundant.

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